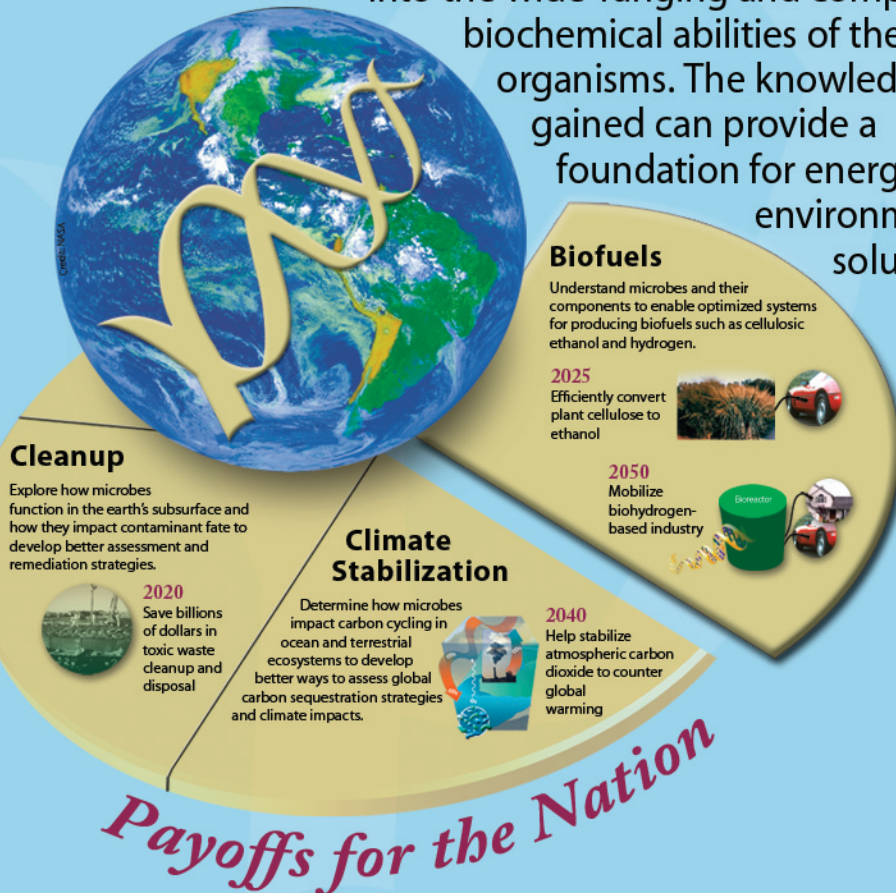


Creating a New Bioscience Research Infrastructure for Cost-Competitive, Carbon-Neutral Biofuels

A World of Microbes for DOE Missions

Microbes are the foundation for life on earth.

DOE Office of Science genome research programs use DNA sequences of microbes to launch large-scale investigations into the wide-ranging and complex biochemical abilities of these organisms. The knowledge gained can provide a foundation for energy and environmental solutions.



Genomics:GTL Research Program

- ▶ Builds on the successes of the DOE-initiated Human Genome Project
- ▶ Scientific program and four planned user facilities will leverage DOE strengths in genomics, computing, technology development, and multidisciplinary teaming.
- ▶ The ultimate scientific goal is to develop a deep understanding of living microbes and their communities to provide the scientific foundation for industrial applications and public policy:
 - Applications technologies: Biofuels production and bioremediation technologies
 - Policy-support products: Climate and economic models to support assessments of energy and carbon-sequestration strategies.